

# HIGH EARLY STRENGTH CEMENT

## PRODUCT DESCRIPTION

Cockburn Cement produces High Early Strength Cement conforming to the Type HE specification in AS 3972.

This product is manufactured to exacting standards at our Munster Works in Munster, Western Australia, for use in the precast, construction and building industry as well as in domestic applications.

## SUPPLY

High Early Strength Cement is available in bulk, bulk bags and 20 kg multi-walled paper bags from the Munster Works and the Customer Service Centres in regional areas. Paper bags are palletised and stretch wrapped.

## SPECIFICATION

High Early Strength Cement exceeds the minimum specification given in AS 3972 and is manufactured under a third party certified manufacturing and supply quality assurance system to ISO 9001 (BSI Certification No FS 604665).

High Early Strength Cement is produced from Portland cement clinker and gypsum, and may contain up to 7.5% mineral additions.

## APPLICATIONS

High Early Strength Cement lends itself to applications where rapid early strength development is desired, for example, when formwork is to be removed early or where sufficient strength for further construction is required quickly.

The overall heat generation and rate of heat evolution will be greater than that of general purpose cements, therefore caution should be taken when specifying High Early Strength Cement for use in large structural sections or in mass construction.

The use of this cement in cold weather may prove beneficial due to its rapid hardening properties.

Admixtures for concrete:

High Early Strength cement is compatible with concrete admixtures complying with AS 1478.

## TYPICAL PROPERTIES

### Physical Properties

Test	Typical Values	AS 3972 Requirement
Fineness Index (m <sup>2</sup> /kg) AS 2350.8		
	425 - 475	-
Setting Time (hr:min) AS 2350.4		
Initial	2:10	Min 0:45
Final	3:15	Max 6:00
Soundness (mm) AS 2350.5		
	< 3	max 5
Compressive Strength ISO-CEN mortar bars (MPa) AS 2350.11		
3 Day	39 - 49	25
7 Day	43 - 61	40
28 Day	55 - 71	-

### Chemical Properties

Test	Units	Max AS 3972	Typical Values
Sulphur Trioxide	%	3.5	3.1
Loss on Ignition	%	-	2.7 - 4.1
Chloride	%	0.1	0.02
Equivalent Alkalies	%	-	0.5
Hexavalent Chromium	mg/kg	-	Trace
Crystalline Silica	%	-	Trace
Components			
Portland Clinker	%	-	85 - 93
Gypsum	%	-	5 - 7
Mineral Addition	%	7.5	up to 7.5

## HANDLING AND STORAGE

Transportation may be in bulk road or rail tankers or in paper bags. High Early Strength Cement can be stored in concrete or steel silos and paper bags for up six months provided that protection against ingress of moisture is observed throughout the storage of the product.

## SAFETY INFORMATION

For safety information refer to the Safety Data Sheet for High Early Strength Cement.



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## CONTACT POINTS

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